

AMENDMENTS TO THE CLAIMS

1. (ORIGINAL) A method of continuously synthesizing ferrate, comprising:
- mixing an iron salt and an oxidizing agent in a mixing chamber to provide a mixture;
  - delivering at least a portion of the mixture to a reaction chamber;
  - continuously generating ferrate in the reaction chamber;
  - delivering at least a portion of the ferrate to a site of use that is proximal to the reaction chamber; and
  - adding additional iron salt and oxidizing agent to the mixing chamber.
2. (ORIGINAL) The method of Claim 1, further comprising adding a base to the mixture.
3. (ORIGINAL) The method of Claim 1, additionally comprising repeating steps (b) through (d).
- 4 - 18. (CANCELLED)
- 205/543 19. (ORIGINAL) A method of continuously synthesizing ferrate, comprising:
- continuously providing an aqueous solution comprising an iron salt in a reaction chamber, wherein the mixing chamber comprises at least two electrodes;
  - providing sufficient electric current to the at least two electrodes to convert at least a portion of the iron salt to ferrate;
  - delivering at least a portion of the ferrate to a site of use that is proximal to the reaction chamber; and
  - adding additional aqueous solution to the reaction chamber.
20. (ORIGINAL) The method of Claim 19, further comprising adding a base to the aqueous solution.
21. (ORIGINAL) A method of synthesizing ferrate, comprising:
- mixing an aqueous solution comprising an iron salt and an oxidizing agent in a mixing chamber to form a solution of ferrate;
  - delivering at least a portion of the solution of ferrate to a site of use that is proximal to the mixing chamber.

22. (NEW) The method of Claim 1, wherein said additional aqueous solution in step (e) is added in an amount to substantially replace the portion of the aqueous solution delivered to the reaction chamber. NAB

23. (NEW) The method of Claim 2, wherein said base comprises an ion selected from the group consisting of a nitrogen base, the hydroxide ion, the oxide ion, and the carbonate ion, or a combination thereof. marked in improper

24. (NEW) The method of Claim 2, wherein said base is sodium hydroxide.

25. (NEW) The method of Claim 1, wherein said iron salt is selected from the group consisting of ferric nitrate, ferrous nitrate, ferric chloride, ferrous chloride, ferric bromide, ferrous bromide, ferric sulfate, ferrous sulfate, ferric phosphate, ferrous phosphate, ferric hydroxide, ferrous hydroxide, ferric oxide, ferrous oxide, ferric hydrogen carbonate, ferrous hydrogen carbonate, ferric carbonate, and ferrous carbonate, or a combination thereof.

26. (NEW) The method of Claim 1, wherein said iron salt is ferric chloride.

27. (NEW) The method of Claim 1, wherein said oxidizing agent comprises at least one of the following: a hypohalite ion, a halite ion, a halate ion, a perhalate ion, ozone, oxone, halogen, a peroxide, a peracid, a salt of a peracid, and Caro's acid, or a combination thereof. Ar

28. (NEW) The method of Claim 1, wherein said oxidizing agent comprises sodium hypochlorite. TM

29. (NEW) The method of Claim 20, wherein said base comprises an ion selected from the group consisting of a nitrogen base, the hydroxide ion, the oxide ion, and the carbonate ion, or a combination thereof.

30. (NEW) The method of Claim 19, wherein said iron salt is selected from the group consisting of ferric nitrate, ferrous nitrate, ferric chloride, ferrous chloride, ferric bromide, ferrous bromide, ferric sulfate, ferrous sulfate, ferric phosphate, ferrous phosphate, ferric hydroxide, ferrous hydroxide, ferric oxide, ferrous oxide, ferric hydrogen carbonate, ferrous hydrogen carbonate, ferric carbonate, and ferrous carbonate, or a combination thereof.

31. (NEW) The method of Claim 19, wherein said oxidizing agent comprises at least one of the following: a hypohalite ion, a halite ion, a halate ion, a perhalate ion, ozone, oxone, halogen, a peroxide, a peracid, a salt of a peracid, and Caro's acid, or a combination thereof. SUBCT

BEST AVAILABLE COPY

Appl. No. : 10/047,460  
Filed : January 14, 2002

32. (NEW) The method of Claim 21, further comprising adding a base to the aqueous solution.

33. (NEW) The method of Claim 32, wherein said base comprises an ion selected from the group consisting of a nitrogen base, the hydroxide ion, the oxide ion, and the carbonate ion, or a combination thereof.

34. (NEW) The method of Claim 21, wherein said iron salt is selected from the group consisting of ferric nitrate, ferrous nitrate, ferric chloride, ferrous chloride, ferric bromide, ferrous bromide, ferric sulfate, ferrous sulfate, ferric phosphate, ferrous phosphate, ferric hydroxide, ferrous hydroxide, ferric oxide, ferrous oxide, ferric hydrogen carbonate, ferrous hydrogen carbonate, ferric carbonate, and ferrous carbonate, or a combination thereof.

35. (NEW) The method of Claim 21, wherein said oxidizing agent comprises at least one of the following: a hypohalite ion, a halite ion, a halate ion, a perhalate ion, ozone, oxone, halogen, a peroxide, a peracid, a salt of a peracid, and Caro's acid, or a combination thereof.

36. (NEW) The method of Claim 21, further comprising adding additional iron salt and oxidizing agent to the mixing chamber in an amount to substantially replace the portion of the aqueous solution delivered to the site of use.

BEST AVAILABLE COPY